Mr. Richard B. Mull
Corporation Composition
  Coordinator
Western Printing and
  Lithographing Company
North Road
Poughkeepsie, New York

Dear Dick:

25X1A9a

Enclosed is a copy of ▮▮▮▮▮▮▮▮▮ talk given in Washington,
D. C., at the March Research and Engineering Council conference on
computerized typesetting. As you will note, hyphenless justification
is only a part of a system being developed by the Central Intelligence
Agency. The computer programs are now being written but are not yet
operational. Program specifications and computer block diagrams for
the justification routines are complete and are aimed at the particular
capability of the Photon 513. The 513 is capable of producing set size
changes from 6 to 13 set in half set increments. We will change set
sizes to one full set above and below "normal," for any font, in half
set increments. Justification arithmetic will be performed for the
five set sizes simultaneously and each line will be "overset" before
the selection, by the computer, of the production set size. When a
choice of set sizes occurs for a line the computer will select as
follows:

  1. First choice - normal
  2. Second choice - normal minus .5 set
  3. Third choice - normal plus .5 set
  4. Fourth choice - normal minus 1.0 set
  5. Fifth choice - normal plus 1.0 set.

On the basis of tests it has been determined that the majority
of the lines will be produced (at 20 picas, 10 point) at choices 1, 2,
and 3. Choice number 4 will occur approximately one line in 200,
choice number 5, one line in 700.

For purposes of computer arithmetic the 5 hypothetical lines are
converted to a linear scale which represents the range, in relative
values, the overlapped lines encompass.

Mr. Richard B. Mull, Western Printing and Lithographing Company

    Ideally it would be best to have a method of infinite set size variation in a photocomposing device, but we know of none with this capability.

    Thank you for your interest and I hope this information is helpful.

<div align="right">
Very truly yours,
</div>

25X1A9a /s/

<div align="right">
Chief
Printing Services Division
</div>

Enclosure

CONCURRENCE:

25X1A9a

/s/

O-DCI-PA

7, June 65

Date

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